## HORNED LARKS IN THE PROVINCE OF QUEBEC

(Otocoris alpestris praticola.)

## By L. McI. TERRILL.

Towards the close of the long Canadian winter, the earliest signs of returning spring are very welcome, and none more so than that first small harbinger, the Prairie Horned Lark (Otocoris alpestris praticola). There comes a time during the latter part of February when the south wind and sun combine in softening the atmosphere. Should you attempt to look the sun in the face on such a day you will probably see spots or sun-dogs. The snow, too, is affected; it has a honey-combed appearance and dark patches point to fastappearing soil. Railroad tracks, hillocks, and manure-piles in the open country are quite bare of snow and steaming with evaporating moisture. On such a day I fully expect to see the Prairie Horned Lark. They are easily recognized: sometimes a dark form will be seen walking or running gracefully over the snow, stopping to investigate places where the earth is showing; again a small company will be found sheltered in the lee of a manure-heap, particularly if the wind is high. Roadways, and especially railway tracks, are favourite feeding resorts.

The males arrive first and show little inclination towards flocking, often being seen singly, though sometimes in groups of from two to ten birds, especially when feeding on railway tracks or other places where grain and seeds are abundant. Frequently a sweet liquid song, delivered from some mound or fence-post, will be the first intimation of their arrival—the first spring song, and doubly sweet for that reason. If the weather is fine they usually sing on arrival, or soon after, and the song is more or less commonly heard throughout their residence here. This song is a difficult one to describe. One associates the name "lark" with all that is sweet and melodious, and although my acquaintance with the European Skylark is not first hand, its family name, from laudo (to

laud) is suggestive of song-ability. To laud, however, literally means "to praise to the skies," which is descriptive of a song-habit rather than song-ability. As with our own Lark its abandon and freedom of utterance are responsible for the saying "merry as a lark." It is a thorough exponent of the theory "Laugh and the world laughs with you," hence the terms "sky-larking," and "out for a lark."

Though our own lark "praticola" has similar mannerisms and delivery, the volume of its song is evidently considerably less, as the average pedestrian appears to know nothing about it.

Ones opinion is a little biased in its favour on hearing the first bird and the first song of spring, but after repetitions a scratchy or "screechy" quality is detected. Once, while crossing a wire fence, I was so uncharitable as to compare it with the squeaking of wires pulled through the staples-but then this self-same squeak was due to exertions in detaching myself from the uncharitable barbs. Another song, less common, though frequently heard during the nesting season, especially in the early morning and at twilight, is probably comparable in some degree to the performance of the European Skylark. Rising toward the sky, higher and higher, the bird gradually disappears from view, and while you are wondering what has become of it a glad song floats down, softened by distance, but still distinct. It consists mainly of several notes repeated over and over, sometimes as many as a dozen times. For brevity I write this in my note-book "the pump song." When I first heard it I was reminded of the action and distant sound of a rusty hand-pump in the dry season. The first notes are similar to the simple song, but the bird is in super-happy mood, and continues repeating the second bar, with a little screechy catch between each repetition, and finishes—just as the water reaches the spout of the pump—with a jumble of liquid notes, similar to the ending of the simple song. This song probably has the same significance as the aerial love song of the Woodcock, being most commonly heard when the female is incubating. I have

also frequently heard it delivered from a mound or other elevation on the ground.

Our earliest spring migrant, the Prairie Horned Lark, is also the most regular of the earlier birds, not excepting the Crow. A few Crows occasionally winter, but the Lark never, as far as I am aware.

Although the Prairie Horned Lark returns with the south wind it does not necessarily proclaim the passage of winter, as sometimes a month of wintry weather follows its return. However its tinkling song imbues us with at least a portion of its hopeful anticipation, and helps to tide over the bleak spots.

During fifteen years the average time of arrival at Montreal, by my records, was March 1st (February 29th for leap years): extreme dates were February 14 (1915) and March 9 (1905). This refers to the male bird, which arrives a week or more in advance of the female.

When in flight, with each sweeping undulation, or, as is often the case, at irregular intervals, the Lark emits a single whistled note, very similar to the first part of the Snowbird's flight notes, sometimes followed by a second note. To me these notes seem best expressed by the syllables "pee" and "Pee-u." While choosing a nesting site and during early nesting operations its vocal activity is especially marked. At this time they are often found in companies of three two males courting one female. They do not seem to be very quarrelsome beyond chasing one another back and forth, but give vent to their feelings vocally. One of the most common utterances sounds something like "seet-te-sweet" or "seet-t'seet," with variations. Another musical call "peeu-wee," or "pee," followed after a pause by "pee-u-wee" (with the accent on the last syllable), has a decided ploverlike quality and is the principal note of alarm. This call is seldom or never uttered before nesting is well under way, and is often shortened to a whistled "pee-u," especially after the young are hatched.

During the period of incubation the Larks become more

quiet and their silence is pronounced when the young have left the nest. I have often watched one slipping away with an exaggerated slowness, proclaiming uneasiness by nervously picking at the soil, possibly with the pretense of feeding. Even with these indications it is not always easy to pick out the old-grass coloured backs of the young squatting motionless by some grass tuft.

A great deal has been written in confirmation of the theory that the Prairie Horned Lark has gradually extended its range eastward from the prairies. In any case it is not partial to thickly wooded or newly cleared land. In such a locality at Bury, Compton Co., Que., 125 miles, S. E. E. of Montreal, it was uncommon during the years 1899-1902. To the north, in the Laurentian Hills, I have seen it sparingly in the cleared valleys of the North, Rouge, and Lievre Rivers, as far as Mt. Laurier, at the end of the railroad, about 150 miles N. N. W. of Montreal. My observations, however, particularly with regard to nesting habits, refer to the valley of the St. Lawrence River, in the vicinity of Montreal. Here they are most abundant within a mile or two of the river shore. For nesting purposes, rolling pasture land with scant vegetation is preferred; often so poor as to produce only a growth of mosses and lichens. A sheep pasture is typical of the Lark's choice. Again they will be found associating with the Killdeer Plover, nesting in a stony field, or in one in which there is exposed rock strata. Sometimes other situations are chosen, such as the close cut stubble of grain fields, and once a nest was found in the furrow of a ploughed field.

As with other prairie nesting birds, suitability as a lookout point is a factor in the Lark's choice of a nesting site; an abrupt slope is never chosen. Cultivated fields in the vicinity of the nest are desired as the Lark feeds largely in ploughed land—in fact I have found it nesting most commonly within a few hundred yards of farm buildings; the neighborhood of woods and swamps is avoided.

The greater number of birds commence nesting during the

second or third week of April, according to the weather, although there are always a few earlier nesters. The earliest record I have was March 14th (1915), when a nest was found commenced. On April 2nd this nest held four young about one day from the shell.

While snow still covers the ground in late March or early April, the birds have little choice of a nesting place and naturally choose the crown of some small elevation, such places being the only suitable spots free of snow. When the soil is sufficiently thawed, and while it is still moist, a bowl-shaped cavity, four to five inches in diameter, is excavated. I have several times seen both birds quite close to these excavations, but have never been able to determine whether or not both assist in the work. The soil taken from the cavity is piled on one side and later becomes an adjunct of the nest, forming an embankment, which possibly serves as a wind-break. This excavated soil is always found in little balls, which tends to prove that it is always scraped out while the ground is wet.

When the excavation is complete the Lark collects material, to be found near at hand, short pieces of withered grasses, seed tops and roots of grass or grain, which is finally pressed into a thick walled nest, averaging, in outside diameter, 4 inches; inside, 2.4 inches; outside depth, 2.2 inches; inside depth, 1.8 inches. The rim of the nest is usually flush with the soil and is very neatly finished and blended with the surroundings, though there is no attempt at weaving or binding, and the nest readily falls to pieces when removed.

Material similar to the body of the nest is used for lining, while generally a little old thistle down is added, and sometimes a small feather or two. The number of eggs deposited is most commonly four; often three composes the set, rarely two, and on one occasion I knew of five being laid.

Eggs of this species exhibit less variation in markings than those of most birds. The main peculiarity in a large number of local specimens lies in the comparatively uniform colouration, pigment being distributed in minute dots, usually over the entire shell, with a slight tendency to form a wreath at the larger end.

Absence of blotches and the pale-coloured pigment produce a delicate appearance—a fragile looking egg indeed, to be found amidst banks of snow.

Variation in shape and size is considerable. The largest set examined averaged .92x.65 of an inch; the smallest, .78x.57; while the average size of ten sets was .85x.61.

The largest and smallest individual eggs were .96x.66 and .76x.57.

One would think that the Lark, nesting so early in the season, would sit very closely, but apparently such is not the case. It is the exception to even see the bird leave its nest, and during the early stages of incubation it will remain at a distance, as long as there is a human being in the vicinity.

On a few occasions I have flushed a sitting bird when within a few feet of her, and at other times, particularly when incubation was advanced, I have seen them leave at distances varying up to 150 yards. On all occasions the departure was similar, a quick bound into the air, directly from the nest, when the bird would go dipping away and alight at some distance. When flushed from its nest or from the vicinity it is not always easy to distinguish the Lark from the Vesper Sparrow, unless you see it leave the nest. It invariably flies away in silence, contrary to its usual custom. However if you watch the bird as it skims the surface of the soil in prolonged undulations, its larger size and the fact that it generally alights on the ground and stands erect to peer at the intruder, will usually serve to identify it.

When the Larks are at all vociferous you may take it for granted that the nest, if there is one, is at some distance.

I have frequently attempted to watch a bird return to its nest, but with the excepion of a few instances, decided that I was not a man of leisure. Occasionally the bird is provoked into disclosing the nesting site. On April 16, 1905. during a sudden snow flurry, a Lark passed over my head, quickly veered toward the ground and vanished! Approach-

ing the spot I looked in vain for the bird until I finally caught sight of her flying away, and soon found the nest, plainly visible with its single egg, the only dark spot in the snow-covered area. The following year, on April 1, while trying my skill, pitching a heavy stone with two companions, a Lark flew towards us, and dipping close to the ground flew over the spot where the stone had fallen. We soon found a newly completed nest within a few feet of this stone.

Inclement and uncertain weather is naturally the chief vicissitude of a ground nesting bird at this early date. After the Larks have commenced nesting we frequently have storms with a fall of wet snow or rain, followed by a lower temperature, sufficient to glaze the fields with an icy covering. This is often disastrous and the birds have to recommence. These conditions were especially noticeable during the springs of 1907, 1912-13-14-15.

After a period of eleven days' incubation the young make their appearance, and during early growth their parents spend much time in adjacent ploughed fields.

Although I have little exact data on the food supplied to the young, I know that many insects in the larval stage are taken, in fact, at this season most insects are still in that condition. I believe that the early nesting of this species is more than merely coincident with the operations of ploughing and harrowing the soil, which are usually in progress at the time young Larks are hatched. This repeated working of the soil keeps a constant supply of larva exposed at a time when the need of the Larks is greatest and competition with other species least. They are thoroughly in accord with the proverb "It's the early bird that catches the worm." In this respect it would be interesting to compare the habits of Larks nesting in virgin prairie districts. Unfortunately I have found little data, beyond nesting dates, for prairie-nesting Larks. Some authorities describe western and southern birds as comparatively late, but whether for birds nesting in an untilled region is not stated.

The male bird is as busy as his mate at this season and has

little time for song, usually confining his efforts to early morning and late afternoon. So far as I have observed, the female alone incubates, but at least the male assists in feeding the young, and is very solicitous of its welfare. On one occasion I almost stepped on a young Lark, when the male bird jumped into the air as if to attack me. Returning to his perch a few feet distant he stretched himself, head up and horns raised, to such an extent as to resemble a Killdeer Plover more than a Lark. On my retiring a few feet he flew to the young bird and fed it.

Perhaps early nesting Larks have more troubles to contend with in raising their young than most birds. Late snowstorms causing nest-abandonment have been previously mentioned, but they have other enemies. At the time incubation is completed many birds of prev have arrived, and considering that the smaller migrants present are comparatively few, the Larks are bound to receive considerable attention. Possibly predacious animals also take their toll, although, happily, I have no records. The protectivelycoloured backs of the adult Larks, with the highly developed watchfulness of this species, keeps them fairly safe from enemies that both soar and creep. It is the young that suffer: of four nests under observation in one locality, during the spring of 1915, only in one instance did the young safely leave the nest. One of these, found April 11, and revisited on April 17, contained broken egg-shells on the latter date, and apparently had been trodden on by some animal.

Another bird safely hatched her young and reared them until they were almost ready to leave the nest. On April 25 the well-spotted feathers, wind-blown in every direction, were all that remained of this brood. This was probably the work of a low-lying Marsh Hawk, which I had several times seen diligently hunting in the vicinity.

Another nest containing a single egg on April 25 was abandoned for some uexplained reason. The fourth nest, found commenced on April 5 (a mere hollow, with no nest material) contained three eggs on the 11th and four on the

12th, and on the 23rd newly-hatched young (perhaps ten hours from the shell), with eyelids unopened and small patches of grayish-white down showing.

Visiting this nest again on the 25th I found considerable development in the nestlings—eyes well-opened and good sized patches of down on either side of the forehead, occiput, back and wings. How narrowly this brood also missed a tragic end was apparent in the track of a farmer's wagon which had passed a few feet away, while cow-manure had been scattered in all directions, one fork-full almost touching the nest. On my next visit (May 1) the condition of the nest showed that the young had recently left, probably the same morning.

In this instance the entire operation, from the time the nest was commenced until the young had vacated, occupied twenty-five days, or possibly a little less. Three days were occupied in nest-construction, four in which to deposit the eggs, eleven (plus) for incubation, and seven to mature the young sufficiently to enable them to leave the nest.

Having devoted very little time to the Larks during May and June, my notes at this period are very scanty, although I am well aware that this species nests a second and possibly a third time.

After a period of quiet, incident to the care of the first brood, the song becomes more frequent during the month of May. The wide first-nesting range, from late March throughout April, makes it difficult to say whether birds found breeding in early May have already raised a brood or not. May 15 (1915), I flushed a Lark near a fresh excavation. By the 22nd this nest was fully lined, but for some reason was later deserted. This was probably a second nesting, as I found another nest, about fifty yards distant, in which a brood had been raised earlier in the season.

During the heat of summer the Prairie Horned Lark is not much in evidence and is usually to be seen in family groups. It sings less and the earlier activity is gone. However, the cause of seeming scarcity is due more to the fact

that one is detracted by the many other birds with more pronounced songs and actions. From the latter part of August, throughout the fall months, it is more gregarious-family groups collecting into small flocks. This is especially noticeable on river shores, where they gather to feed, often in company with various species of sandpiper and plover, and later in the season with Pipits, Horned Larks (alpestris), and Snowbirds; hence the common appellation "shore-lark." Flocks are seldom very large-more often from twenty to fifty birds—and are not compact as flocks, say, of the European Sparrow, which arise in a cloud; whereas, the Larks, with a startled whistle, keep bounding up just ahead of you, and a company of fifty will sometimes occupy several acres. The Prairie Horned Lark evidently finds the fall weather agreeable, as it sings more commonly after the extreme heat of summer is passed. Towards the end of October migration is at its height, and usually by the beginning of November few remain. My latest record was November 21 (1915).

Following is a summary of migration for the past nine-

		First Arrivals	Earliest Song	First Nesting	Condition	Latest Song	Last Seen
	1897	March 6					
	1898 (mated)	March 15	March 15				
Que.	1899	March 13	March 13				
Ž	1900	March 18			*		
Bury,	1901	March 8					
Pa Pa	1902	March 9					Oct. 2
	1903	March 7		April 26	Four young a few days old		Oct. 1
	1904	March 6				Oct. 23	Oct. 2
	1905	March 9	March 19	April 16	with one egg		Oct. 2
	1906	Feb. 23	March 4	April 1	two nests fully lined		Nov. 1
	1907	Feb. 24		April 7	two nests under con- struction		Oct 2
	1908	March 1	March 8	April 12	nest commenced		Nov. 1
	1909	Feb. 28	Feb. 28	April 4	three fresh eggs	Oct. 25	Oct. 2
	1910 (mated)	March 5	March 6	March 27	two nests almost completed		Nov.
	1911 (mated)	March 5		April 9	three nests com- menced	Oct. 15	Nov.
	1912 (mated)	March 10		April 7	five nests, one com- pleted	Oct. 6	Nov. 1
	1913	Feb. 23	March 16	March 23	four nests, one com- pleted	Oct. 12	Nov.
	1914	March 8	April 8	April 5	one completed nest		Nov. 1
	1915	Feb. 14		March 14	nest commenced	Oct. 24	Nov. 2

teen years. It will be noticed that four records of spring arrivals are for mated birds. Allowing for a lapse of at least seven days between the arrival of male and female, and eliminating the four records made at Bury, Que., we have an average date of arrival at Montreal, during fifteen years, of March 1 (Feb. 29 for leap years).

The thirteen records of fall departure give November 3 as the average date on which the last birds were seen.

THE HORNED LARK (Octoris alpestris alpestris).

While watching Prairie Horned Larks during April, when they were paired and nesting, it has been customary for me to see flocks of larks, sometimes as many as a hundred, but usually between fifteen and fifty birds. Formerly I thought these "praticola" on their way to more northern districts, but later investigation invariably proved them to be O. a. alpestris. In the vicinity of Montreal they usually arrive more than a month later than "praticola": the average time during seven years being April 11.

Throughout April I have many times had the opportunity of direct comparison between the two species. The contrast between a solitary Prairie Horned Lark, giving utterance to song or alarm, and the Horned Lark, with its gregarious habits, startled whistle, unsettled manner, and absence of song, easily proclaims the fact that it is still in migration, and not even thinking of nesting.

In the fall, when both species are gregarious, it is more difficult to secure records without indiscriminate shooting, and my scattered notes for this season are not sufficient to warrant conclusions.

Following is a summary of migrations for this species. Omissions of dates of departure are due, mainly to my failure in recording them:

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1906—First seen, April 8. Last seen, ——.
1909—First seen, April 4. Last seen, May 2.
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1910—First seen, March 28, Last seen, ———.

1911-First seen, April 16. Last seen, April 23.

1912—First seen, April 28. Last seen, ——.

1913—First seen, April 13. Last seen, May 4. 1914—First seen, April 10. Last seen, ——.

I cannot resist alluding to the several outward resemblances, in habit and appearance, between shorelarks and shorebirds (*Limicolae*). The whistled "pe-u," appearance while walking and running, and the partially ringed neck of Otocoris all recall certain shorebirds; and coupled with the habit of associating with shorebirds during migration, these resemblances are responsible for the destruction of many larks by mistaken gunners.

St. Lambert, Que.

## ANNOTATED LIST OF THE WATER BIRDS, GAME BIRDS AND BIRDS OF PREY OF SAC COUNTY, IOWA.

By J. A. Spurrell.

My purpose in writing this list is to place on record personal observations, which if trusted to memory or even to note-books would be lost, and also much data gathered from the pioneers of the county, which is much more valuable than my own observations.

My personal interest in birds dates from my early child-hood. When I first began to keep a record of the species identified in July, 1907, I had a local list of about fifty species. My first Reed's Bird Guides were purchased in 1906. They had been preceded by a complete file of "Birds and Nature" and were followed by many other bird books. After that my local list grew steadily until it now numbers one hundred sixty-five species. In my own identifications I have used extreme care in making records of species, excluding everything doubtful. I have used eight-power stero-binoculars the last four years. I have also identified all dead specimens found. In gathering data from the pioneers I have used extreme care to differentiate species, excluding everything doubtful.